ABSTRACT

A wireless communication system and method for controlling transmission power to maintain a received signal-to-interference ratio (SIR) as close as possible to a target SIR. A received quality is maintained as close as possible to a target quality based on block error rate (BLER). When a target BLER is converted to an initial target SIR, an error may occur due to a channel condition mismatch, since the target SIR required for the target BLER varies with channel conditions. An outer loop power control process is used to set a target SIR for each coded composite transport channel (CCTrCH) based on the required target BLER. The process adjusts a SIR step size parameter to maximize the convergence speed of the process.